

Report on Teacher Feedback from the First Calibration of Mathematics Assessments

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Jan Schouten & Gavin T. L. Brown
University of Auckland

This report summarises feedback responses of the teachers ($n=33$) involved in the second nationally representative calibration of asTTle mathematics papers in May 2002. Feedback was generally positive and from both teachers and students.

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A trial of new asTTle mathematics assessment tasks was conducted in May 2002. The trial consisted of five papers covering curriculum material in Levels 2 to 4. An item signature study (see Thomas, Tagg, Holton, & Brown Technical Report 25 for details) indicated that there were insufficient items written for hard level 4 and easy level 2, especially in the curriculum areas of probability and geometry. The purpose of this calibration was to remedy the distribution of items in the asTTle item bank by level and content.

A total of 16 schools, selected from a nationally representative sample of 40 schools, were invited to participate in the second calibration of the asTTle mathematics assessments conducted in May 2002. Of this population, nine schools offered approximately 1,450 students, reasonably in proportion to the nation in regards to decile, school type, and school size. Just over 1,250 papers were returned for analysis.

The five mathematics papers were calibrated with students in Years 6, 7, and 8. Older students were used in this calibration for two reasons; (a) it was still in the first half of the year meaning that students in a higher year

were anticipated to perform closer to the target population of students one year lower at November of the school year, and (b) materials designed for the difficult end of Level 4 were judged to be too difficult for students in Year 5. There was one mathematics paper for students in Year 6, and two each for years 7 and 8. The curriculum level of tasks in each paper was designed with the general year level of student in mind. In other words, Year 6 papers had less Level 4 materials and more Level 2 materials, while Year 7 and Year 8 papers had less Level 2 materials, and more Level 4 materials. It should be noted that this arrangement might nevertheless result in individual children receiving a paper that could have been too hard or easy depending on their own progress in mathematics.

Each teacher who administered the tests was asked to complete a teacher feedback form. The potential pool of respondents, estimated at about one teacher per 25 students, would be about 58. A total of 33 replies were received. This response sample represented just over half of all teachers potentially involved in administering the asTTle papers.

Responses were in the nature of comments to prepared questions. The comments were generally coded using a “Yes”, “No”, “Both yes and no”, or “No answer”. The category “Yes” indicates a favourable or positive response to the question, a “No” an unfavourable or negative response to the question, and “Both yes and no” indicates a response that contains both positive and negative comments. “No answer” includes comments that were incapable of meaningful interpretation.

Question One

Was the content appropriate for the age level and ability of the students?

Over 75% of the teachers were satisfied with the content of the mathematics tests. Of the quarter of teachers who gave a qualified response to this question, most indicated that as expected some of the lower ability children found the content difficult and some of the more capable children could have been challenged further. Some of the teachers also indicated that since the test was taken early in the year some of the content may have been unfamiliar to the children since the concepts would possibly be taught later in the year.

Table 1
Appropriateness of content

	Yes	No	Both	No answer	Total
N	23	1	8	1	33
Percentage	58	16	24	2	100

Comments indicating a favourable response included: *“Yes, ranged from easy-medium-hard.”* *“Very comprehensive and covered the range of abilities, as well as, utilizing the appropriate concepts”*.

Question Two

Was the content interesting and engaging for the students?

Over 80% of the Teachers indicated a positive response to this question. Comments such as:

- *“Yes – they responded positively to it.”*
- *“There was a good variety and something for everyone.”*
- *“Positive response to the way the content was presented with variety of challenges.”*

Table 2
Content interesting and engaging

	Yes	No	Both	No answer	Total
N	26	3	3	1	33
Percentage	77	10	11	2	100

Question Three

Were the teacher instructions clear, easy to follow, and sufficient?

There was an 84% positive response to this question with no negative replies. A few teachers made suggestions as to how these instructions could be improved but these suggestions were only of a minor nature and will be considered when future calibration is conducted.

Table 3
Teacher Instructions

	Yes	No	Both	No answer	Total
N	27	0	5	1	33
Percentage	78	10	10	2	100

Question Four

Was the level of difficulty appropriate for all students?

Although approximately 60% of the responses were positive, these replies came mainly from the teachers of the pupils who were involved with the testing of papers for students in Years 6 and 7. Many teachers who were asked to administer the Year 8 papers stated that the questions were too difficult especially for the lower ability children. In a trial such as this, it is difficult to cater for the whole range of abilities of the children in the sample schools.

Some of the positive responses were:

- *“The range was suitable so all students felt successful and challenged.”*
- *“They thought they could handle it.”* and
- *“Great challenge”*

Negative replies included:

- *“A lot was too hard and either not done, or just guessed. How can you suit all of them?”*
- *“Too hard for most.”* and
- *“Not suited for L3+ and higher.”*

Table 4
Level of difficulty

Response	N	Percentage
Yes	19	33%
No	8	7%
Both	5	14%
No answer/Un-interpretable	1	5%
Total	243	100%

Question Five

What was the response of the students to the papers?

As was expected the children who were able to cope with the test in general made positive responses with the children who were struggling with the tests giving negative comments. Words such as: “*Fun, exciting and challenging*” were expressed. “*They [the questions] were different from other activities I have done.*” Some of the negative responses stated that some of the questions were hard to understand, not specific enough, covered concepts that had not been covered this year, or required a lot of careful reading. The following statement perhaps sums up the general feeling about the tests, “*Some really liked the test. A few didn’t like it –[they] don’t like any test.*”

Table 5
Student responses to paper

Comment	N	Percentage
Positive	23	45%
Negative	8	14%
No answer	2	2%
Totals	33	100

Question Six

Are there any general comments you would like to make?

Two out of three teachers made comments with a wide range of responses to this question. The responses were reasonably evenly mixed between positive, negative, neutral, or suggestions for improvement.

Most of the negative responses from the teachers referred to minor details of the tests. For example, “*Use of Bold print*”, “*1 or 2 questions not quite clear*”, “*difficulty with reading the instructions*”. However positive

comments were made, such as: “*The format of the test papers were clear and easy to follow.*” and “*Good visual and problem solving approach.*”

Concluding Comment

The tests were well received by the vast majority of teachers and students. The tests were interesting, well presented and seen as a challenge by the majority of the children. The Year 8 tests were seen as more difficult and were beyond many of the children. A few suggestions were offered for the improvement of some of the test items. These suggestions will be carefully considered and if necessary acted upon in the final production of this project. Despite this, however, the overall response was overwhelmingly positive.